# REMARKS

Claims 1-3, 6, 9-14, 17, 20-22, 35, 40-48, and 54-56 were previously pending for examination. No claims are currently added, canceled, or amended. As a result, claims 1-3, 6, 9-14, 17, 20-22, 35, 40-48, and 54-56 remain pending for examination, with claims 1, 12, 35, 40, and 41 being independent claims. No new matter has been added.

As a threshold matter, the Examiner has not met the requirements for a proper rejection of the claims of the present application. Applicants thus respectfully request the withdrawal of the finality of the present Office Action and allowance of the present application or an issuance of an Office Action which more specifically details the reasons for rejection of the claims of the present application.

As stated in the MPEP at § 2141, "35 U.S.C. 132 requires that the applicant be notified of the reasons for the rejection of the claim so that he or she can decide how best to proceed. . . . . The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. . . . "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." KSR, 550 U.S. at \_\_\_\_\_\_, 82 USPQ2d at 1396." Further, as sated in the MPEP at § 2143.03, "All words in a claim must be considered in judging the patentability of that claim against the prior art." To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. Fresenius USA, Inc. v. Baxter Int'l, Inc., 582 F.3d 1288 (Fed. Cir. 2009): In re Royka, 490 F.2d 981 (CCPA 1974).

In the present Office Action, the Examiner uses only conclusory language to state that all of the claims of the present application are obvious over the cited references. The Examiner does not show where each element of any of the claims of the present application can be found in or can be rendered obvious by the cited references, alone or in combination. For example, in the rejection of claims 1-3, 6, 9-14, 17, 20-22, 35, 40-42, and 54-56 under 35 U.S.C. § 103(a) as being unpatentable over Cote in view of Zha beginning on page 2 of the Office Action, and in the rejection of claims 1-3, 6, 9-14, 17, 20-22, 35, 40-42, and 54-56 under 35 U.S.C. § 103(a) over Zha and/or Cote in view of Shimizu, and further in view of Henshaw beginning on page 3

of the Office Action, the Examiner does not point to a single element of even a single claim of the application that is allegedly made obvious by the asserted combination of references.

As such, the Examiner has not met the burden of establishing a prima facie case of obviousness of any of the claims of the present application as set forth in the MPEP. For this reason, Applicant respectfully requests the withdrawal of the finality of the present Office Action and allowance of the present application or an issuance of an Office Action which more specifically details the reasons for rejection of the claims of the present application.

Applicant presents the following response as if the Examiner had set forth a proper rejection of the claims of the present application.

### Rejections under 35 U.S.C. § 103

### I. Cote in view of Zha and Zha in view of Shimizu and further evidenced by Cote.

Claims 1-3, 6, 9-14, 17, 20-22, 35, 40-42, and 54-56 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cote et al. (US 2005/0006308, claiming priority to US Provisional Pat. App. No. 60/278,007) (hereinafter "Cote")<sup>1</sup> in view of Zha et al. (US 2001/0047962) (hereinafter "Zha").

Claims 1-3, 6, 9-14, 17, 20-22, 35, 40-42, and 54-56 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Zha in view of Shimizu (US 5,482,625) (hereinafter "Shimizu") and further evidenced by Cote.

Cote and Shimizu appear to be substantially cumulative with regard the features disclosed therein which are relied on by the Examiner in support of the above rejections. As such, the rejections over Cote in view of Zha and over Zha in view of Shimizu as further evidenced by Cote will be addressed together.

There can be no *prima facie* case of obviousness of claims 1-3, 6, 9-14, 17, 20-22, 35, 40-48, and 54-56 over Cote in view of Zha, or over Zha in view of Shimizu and further evidenced by Cote because these asserted combinations fail to disclose or suggest each and every element of any of these claims. Further, one of ordinary skill in the art would not have been motivated to have combined Cote and Zha, or Zha and Shimizu in the manner asserted by the Examiner *ab initio* 

<sup>1</sup> As Cote US 2005/0006308 is not prior art with regard to the present application, any references to Cote below refer to Cote Provisional Pat, App. No. 60/278,007.

A. The asserted combinations of Cote in view of Zha, and Zha in view of Shimizu allegedly further evidenced by Cote, both fail to disclose or suggest a plurality of filtration modules mounted in a common manifold and supplied with a gas/liquid mixture from a single mixing chamber, or an air inlet passing through the manifold and into the mixing chamber from above.

Independent claim 1 recites, in part, "A membrane filtration apparatus comprising: a plurality of membrane filtration modules, each membrane filtration module comprising; a plurality of porous membranes extending in an array, said plurality of porous membranes encased in a support structure and having lower ends mounted in a lower pot supported by a lower header [,] a single manifold coupled to said lower header of each of said plurality of membrane filtration modules[,] and a single chamber positioned below, and connected to, said manifold, said chamber constructed and arranged to promote upward flow of feed liquid therethrough, said chamber comprising . . . a single gas inlet constructed and arranged to introduce gas into said chamber in a downward direction from above the open base end, said gas fed from above and through said manifold and into said chamber, said gas inlet centered between at least two of said plurality of membrane filtration modules and configured to release gas into said chamber at a position vertically displaced below said at least two of said plurality of membrane filtration modules." Support for the elements of claim 1 is provided at, for example, FIG. 2 and the description thereof, e.g., at paragraphs [0059]-[0061] of the present application as published (US Pat. App. No. 2007/0007214 A1) as well as at paragraph [0016] of the application.

Independent claim 12 recites, in part, "An assembly of membrane modules comprising: a plurality of porous membranes extending in an array and having lower ends mounted in a plurality of lower pots supported by a plurality of respective lower headers. . . . said lower pots being configured to provide a number of distribution apertures therein[,] said lower headers coupled to a manifold[,] and a chamber positioned below and connected to said manifold, said chamber constructed and arranged to promote upward flow of feed liquid therethrough, said chamber comprising . . . a second end in fluid communication with said distribution apertures [and] a gas inlet constructed and arranged to introduce gas into said chamber in a downward direction from above the open base end, said gas fed from above and through said manifold." Support for the elements of claim 12 is provided at, for example, FIG. 2 and the description

thereof, e.g., at paragraphs [0059]-[0061] of the present application as published (US Pat. App. No. 2007/0007214 A1) as well as at paragraph [0016] of the application.

Independent claim 35 recites, in part, "A membrane filtration apparatus comprising: a plurality of membrane filtration modules, each membrane filtration module comprising a plurality of porous membranes, said membranes . . . having lower ends mounted in a lower pot supported by a lower header[,] a manifold coupled to said lower headers[,] an open-ended mixing chamber constructed and arranged to provide a cleaning mixture by mixing together liquid and gas bubbles, said chamber immersed in a feed tank and having an open base in fluid communication with a source of feed liquid, said chamber constructed and arranged to promote upward flow of feed liquid therethrough[,] a gas source positioned within the open-ended mixing chamber, the gas source constructed and arranged to introduce gas through a single gas inlet into the open-ended mixing chamber in a downward direction from above the open base, said gas fed from above and through said manifold and into said chamber, said single gas inlet centered within said plurality of membrane modules[,] and means for flowing said cleaning mixture along a surface of said membranes to dislodge fouling materials therefrom." Support for the elements of claim 35 is provided at, for example, FIG. 2 and the description thereof, e.g., at paragraphs [0059]-[0061] of the present application as published (US Pat, App. No. 2007/0007214 A1) as well as at paragraph [0016] of the application.

Independent claim 40 recites, in part, "A membrane bioreactor comprising: a plurality of membrane filtration modules, each membrane filtration module comprising a plurality of porous hollow membrane filtres extending longitudinally between and mounted between an upper and a lower potting head, . . . said fibres being partitioned into a number of bundles at least at or adjacent to their respective potting head so as to form a space therebetween[,] a header in which the lower potting head is supported[,] a manifold coupled to the header[,] an open-ended mixing chamber positioned below the lower potting head. . . and a gas inlet positioned within the open-ended mixing chamber, the gas inlet spaced from and surrounded by side walls of the open-ended mixing chamber and configured to feed gas into the open-ended mixing chamber from above and through said manifold." Support for the elements of claim 40 is provided at, for example, FIG. 2 and the description thereof, e.g., at paragraphs [0059]-[0061] of the present application as published (US Pat. App. No. 2007/0007214 A1) as well as at paragraphs [0016], [0037], and [0038] of the application.

Independent claim 41 recites, in part, "An assembly of membrane modules for use in a membrane bioreactor comprising: a plurality of porous hollow membrane fibres extending longitudinally between and mounted between an upper and a lower potting head. . . . said fibres being partitioned into a number of bundles at least at or adjacent to their respective potting head so as to form a space therebetween[,] a header in which the lower potting head is supported[,] a manifold coupled to the header[,] an open-ended mixing chamber positioned below the lower potting head . . . and a gas inlet positioned within the open-ended mixing chamber, the gas inlet spaced from and surrounded by side walls of the open-ended mixing chamber, and centrally located within the open-ended mixing chamber from above and through said manifold. Support for the elements of claim 41 is provided at, for example, FIG. 2 and the description thereof, e.g., at paragraphs [0059]-[0061] of the present application as published (US Pat. App. No. 2007/0007214 A1) as well as at paragraphs [0016], [0037], and [0038] of the application.

Each of the independent claims of the application thus recite, as indicated by the underlined portions of the claims above, a plurality of membrane modules having headers mounted in a single manifold and a mixing chamber coupled to the manifold into which gas is introduced from above by a gas inlet passing through the manifold. None of these claims include any new matter as noted by the citations to the support for the claims provided after the paraphrasing of each of the claims above. Notably, no amendments to the claims were made in this response or in Applicants' previous response.

None of Cote, Zha, or Shimizu disclose or contemplate a plurality of membrane modules coupled through a single manifold to a single mixing zone including a gas inlet passing into the mixing zone through the manifold from above as recited in the claims of the present application. As such, no combination of Cote, Zha, and Shimizu can disclose these elements of the claims of the present invention.

Notably, each of Cote, Zha, and Shimizu, alone or in combination, fail to disclose or suggest a manifold coupled to lower headers of a plurality of membrane modules and connected to a single mixing chamber including a single gas inlet constructed and arranged to introduce gas into the mixing chamber from above and through the manifold, wherein the gas inlet is horizontally centered between at least two of a plurality of membrane filtration modules, as recited in independent claims 1 and 35. Each of Cote, Zha, and Shimizu, alone or in combination, fail to disclose or suggest a manifold coupled to the lower headers of a plurality of

membrane modules positioned above and connected to a chamber including a gas inlet constructed and arranged to introduce gas into the chamber in a downward direction from above and through the manifold, as recited in independent claim 12. Each of Cote, Zha, and Shimizu, alone or in combination, also fail to disclose or suggest a manifold coupled to a header in which the lower potting heads of a plurality of membrane filtration modules are mounted, the manifold positioned above a mixing chamber including a gas inlet spaced from and surrounded by side walls of the mixing chamber and configured to feed gas into the mixing chamber from above and through the manifold, as recited in independent claims 40 and 41.

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Cote, Shimizu, and Zha were characterized in Applicants' previous response filed May 11, 2010, and the characterization of these references will not be repeated here.

The Examiner asserts on page 11 of the Office Action that Cote somehow discloses a single mixing chamber providing gas to a plurality of modules at FIGS. 3 and 7. Cote's application Pub. No. 2005/0006308 A1, in which the figures the Examiner refer to appear, was filed after the priority date of Dec. 5, 2002 of the present application. These FIGS. are not, however, present or described in Cote's provisional application 60/278,007, filed March 23, 2001 to which application Pub. No. 2005/0006308 A1 claims priority to, and thus cannot constitute prior art with regard to the present application.

The Examiner asserts on page 11 of the Office Action that Zha discloses a structure similar to Applicants' claimed plurality of membrane modules in paragraph [0059] which reads, in part "the module 45 comprises a plurality of hollow fiber membrane bundles 46." The "plurality of hollow fiber membrane bundles 46" of Zha cannot, however constitute membrane modules as claimed in the independent claims of the present application. Zha discloses that these "plurality of hollow fiber membrane bundles 46" form part of the module 45, i.e., a single module. The "plurality of hollow fiber membrane bundles 46" are thus part of a single module and not modules unto themselves.

As discussed above, each of the independent claims of the present application recite a plurality of membrane modules having headers mounted in a single manifold and a mixing chamber coupled to the manifold into which gas is introduced by a gas inlet from above and through the manifold. In contrast, in each of Cote, Zha, and Shimizu, a single membrane module is supplied with an aerating gas from a single chamber associated with the single module in which air is introduced directly below the filtration membranes. None of Cote, Zha, or Shimizu disclose or suggest any way in which a plurality of the respectively disclosed membrane modules

could be mounted together in a common manifold. Nor do any of Cote, Zha, or Shimizu disclose or suggest any way in which the respectively disclosed membrane modules could be supplied with a gas from a single mixing chamber including a gas inlet passing downwardly through a manifold and positioned in the mixing chamber. Notably, there is no manifold disclosed in the respective apparatus of any of Cote, Zha, or Shimizu through which the claimed air inlet could pass through.

As none of Cote, Zha, and Shimizu, alone or in combination, disclose or suggest each and every element of any of independent claims 1, 12, 35, 40, and 41, none of these claims, or the claims which depend from these claims, can be obvious over Cote in view of Zha or over Zha and Shimizu as evidenced by Cote.

# B. Neither Cote and Zha, nor Zha and Shimizu allegedly further evidenced by Cote, are properly combinable as asserted *ab initio*,

Neither Cote and Zha, nor Zha and Shimizu would have been combined in the manner asserted by one of ordinary skill in the art.

The Examiner asserts on page 4 of the Office Action that one of ordinary skill in the art would have been motivated to include the air distribution system of Cote into the apparatus of Zha because this would allow air to flow to the roots of the fibers. The Examiner further asserts on page 6 of the Office Action with respect to incorporating the air distribution system of Shimizu into the apparatus of Zha that having an air line into the chamber to provide for the air outlet, and how to place the air line with respect to the header or the membranes would be obvious to one of ordinary skill, and could be designed based on convenience.

Neither of these assertions establishes a valid motivation to combine Cote and Zha, or Zha and Shimizu as asserted by the Examiner.

As explained in Applicants' previously filed response, the Examiner has not shown that to include the air distribution system of Cote into the apparatus of Zha would provide any benefit not already provided by the apparatus of Zha that would have motivated one of ordinary skill in the art to have made this modification. The apparatus of Zha already provides for air/liquid mixing in the mixing chamber and distribution to the various fiber membranes through distribution apertures 10. (Zha FIG. 1 and the description thereof).

One of ordinary skill in the art would not have been motivated upon a reading of Zha to have replaced the venturi device of Zha with the air distribution pipe 3 of Cote or to have

modified the air nozzle disclosed in Zha so that it was inverted in the fluid flow path, as this would have negated the benefits of using a venturi device as disclosed in Zha. Zha acknowledges that gas may be injected by means of a blower "into a liquid system where a membrane module is submerged to form gas bubbles" as is disclosed in Cote, however criticizes such a method and discloses that such a method gives rise to numerous disadvantages which are alleviated through the use of a venturi device instead of an air blower. (Zha at paragraphs [0004], [0041], and [0045].) One of ordinary skill in the art would not have modified Zha as asserted in the Office Action because this would have resulted in the disadvantages disclosed in Zha without providing any compensating advantage.

Further, as also explained in Applicants' previously filed response, the asserted combination is invalid because to make the asserted modification to Zha would change the principle of operation of the apparatus of Zha (from using a venturi device to mix air into liquid to using a blower to introduce air into liquid). *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). MPEP § 2143.01

The Examiner asserts on page 8 of the Office Action that the above argument as to why one would not replace the venturi or jet of Zha with the air diffuser of Shimizu is not persuasive because Zha teaches jet type air nozzles as well at paragraph [0046] which force gas into liquid. The "jet type nozzle" disclosed in Zha is not, however, a direct air injection apparatus such as disclosed in Shimizu. In the same paragraph of Zha which the Examiner cites, Zha disparages the use of the direct injection of gas into a membrane module: "If the gas is directly injected into a pipe filled with a liquid, it is possible that the gas will form a stagnant gas layer on the pipe wall and therefore gas and liquid will bypass into different parts of a module, resulting in poor cleaning efficiency." Indeed, the "jet type nozzle" disclosed in Zha is a form of venturi device (See Zha at para. [0041] "The venturi device 12 can be a venturi tube, jet, nozzle, ejector, eductor, injector or the like." (emphasis added))

The Examiner further asserts on page 9 of the Office Action that replacing the venturi of Zha with the air diffuser of Shimizu is obvious because "incorporating known elements in a combination is prima facie obvious." This is not, however, the law regarding obviousness. A patent "composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 418 (2007). "[V]irtually all [inventions] are combinations of old elements.' . . . [R]ejecting patents solely by finding prior art corollaries for the claimed elements would permit

an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be 'an illogical and inappropriate process by which to determine patentability.'" In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998) (internal citations omitted). See also MPEP § 2143.01 ("A statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references.")

With regard to the Examiner's assertion that having an air line into the chamber to provide for the air outlet, and how to place the air line with respect to the header or the membranes would be obvious to one of ordinary skill, and could be designed based on convenience, Applicants respectfully disagree. As stated previously, there is no plurality of membrane modules and no manifold disclosed in any of Cote, Zha, or Shimizu which one could place an air line with respect to "based on convenience."

Applying the Examiner's rationale, if one were designing a membrane filtration system including multiple membrane modules according to any of Cote, Zha, or Shimizu, as a matter of "convenience," one would simply include multiple modules as disclosed in Cote, Zha, or Shimizu, each module including its own mixing chamber and air inlet. It would be far less "convenient" to attempt to design a manifold and air distribution system as claimed in the present application and redesign the modules of any of Cote, Zha, or Shimizu to function with such a manifold and air distribution system. This is because, as explained in Applicants' previous response, it would be far from trivial to perform such a redesign the modules of any of Cote, Zha, or Shimizu. Performing such a redesign would require significant experimentation to obtain a functional multi-module filtration system, if it were even possible to design such a multi-module filtration system using the modules of any of Cote, Zha, or Shimizu so that it could operate for its intended purpose.

As such, one of ordinary skill in the art would not, upon a reading of any of Cote, Zha, and Shimizu have been motivated to have performed such a fundamental restructuring of the apparatus disclosed in these references. There would be no reasonable expectation of success in doing so, this would fundamentally have altered the structure and function of the apparatus disclosed, and there is no suggestion of any benefit to doing so in any of Cote, Zha, and Shimizu.

Thus, upon a reading of Cote, Shimizu, and Zha, one of ordinary skill in the art would have been dissuaded from performing the modifications asserted by the Examiner because, as disclosed by Zha, these modifications would have led to numerous disadvantages. The only way that the Examiner can combine these references to reconstruct the claims of the present application is through hindsight reconstruction using knowledge gleaned from the present disclosure as a roadmap. This is an impermissible use of hindsight analysis which cannot form the basis of a valid rejection under 35 U.S.C. § 103.

The Examiner asserts in the Office Action at page 11 that the arguments for the noncombinability of Cote and Zha or Zha and Shimizu which were presented in Applicants' previous response are "not supported by any evidence." Applicants respectfully disagree. Applicants have pointed to specific sections of Zha which show that Zha disparages the use of air distribution systems such as is disclosed in Cote and Shimizu and have explained why this would have dissuaded one of skill in the art from modifying Zha in light of Cote or Shimizu as suggested by the Examiner.

The Examiner further asserts that the arguments for the non-combinability of Cote and Zha or Zha and Shimizu which were presented in Applicants' previous response are "not commensurate in scope with the rejection, and assume bodily incorporation of structures, and elements, not recited in the claims." Applicants again respectfully disagree. As explained above, each of the independent claims of the present application recite a plurality of membrane modules having headers mounted in a single manifold and a mixing chamber coupled to the manifold into which gas is introduced from above and through the manifold. The arguments for the non-combinability of Cote and Zha or Zha and Shimizu which were presented in Applicants' previous response, and which are reiterated above, show why one of skill in the art would not have been motivated to have combined Cote and Zha or Zha and Shimizu to form apparatus including these elements. The above arguments discuss "bodily incorporation of structures" only to the extent that the various elements found in Zha, Cote, and Shimizu would have to be combined to produce the combination asserted by the Examiner.

Because the asserted combinations of Cote and Zha, and Zha and Shimizu cannot disclose or suggest each and every claim element of any of independent claims 1, 12, 35, 40, or 41, and because these references would not have been combined in the manner asserted by one of ordinary skill in the art, independent claims 1, 12, 35, 40, or 41 and the claims that depend

therefrom cannot be obvious over Cote in view of Zha or Zha in view of Shimizu and further evidenced by Cote.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-3, 6, 9-14, 17, 20-22, 35, 40-48, and 54-56 under 35 U.S.C. § 103 over Cote in view of Zha and over Zha in view of Shimizu and further evidenced by Cote is respectfully requested.

### II. Zha and/or Cote in view of Shimizu and Henshaw.

Claims 1-3, 6, 9-14, 17, 20-22, 35, 40-48, and 54-56 were rejected under 35 U.S.C. § 103(a) over Zha and/or Cote in view of Shimizu, and further in view of Henshaw (US 5,783,083).

There is no *prima facie* case of obviousness of claims 1-3, 6, 9-14, 17, 20-22, 35, 40-48, and 54-56 over Zha and/or Cote in view of Shimizu, and further in view of Henshaw. The asserted combination of Zha and/or Cote, Shimizu, and Henshaw fails to disclose or suggest each and every element of any of these claims. Further, one of ordinary skill in the art would not have been motivated to have combined these references in the manner asserted *ab initio*.

As explained in Applicants' previous response, nothing in Henshaw cures the failure of the asserted combinations of Zha and/or Cote and Shimizu to disclose or suggest each element of any of the claims of the present application.

Further, the reasons discussed above why one of ordinary skill in the art would not have been motivated to have combined Cote with Zha, or Zha with Shimizu in the manner asserted by the Examiner apply equally well to the asserted combination of Zha and/or Cote, Shimizu, and Henshaw

As such, each of claims 1-3, 6, 9-14, 17, 20-22, 35, 40-48, and 54-56 is patentable the asserted combination of Zha and/or Cote, Shimizu, and Henshaw. Accordingly, reconsideration and withdrawal of the rejection of claims 1-3, 6, 9-14, 17, 20-22, 35, 40-48, and 54-56 under 35 U.S.C. § 103 over Zha and/or Cote, Shimizu, and Henshaw is respectfully requested.

### Provisional Double Patenting Rejection

Claims 1-22, 35, 40-48, and 54-56 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the claims in co-pending Application No. 11/025,418 in view of Shimizu. As noted in Applicants' previous response<sup>2</sup>. claims 4, 5, 7, 8, 15, 16, and 19 were previously canceled, rendering the provisional double patenting rejection of these claims moot. Applicants respectfully disagree that any of claims 1-3, 6, 9-14, 17, 20-22, 35, 40-48, and 54-56 of the instant application should be rejected on the ground of obviousness-type double patenting. Notwithstanding this traversal, Applicants will submit a terminal disclaimer with respect to co-pending Application No. 11/025,418 once the instant claims are deemed allowable.

<sup>&</sup>lt;sup>2</sup> Applicants' response filed January 19, 2010.

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## CONCLUSION

Applicants respectfully request reconsideration of the claims in view of the foregoing amendments and remarks. The application as presented is in condition for allowance. An early and favorable action is respectfully requested. If the Examiner believes, after this Response, that the application is not in condition for allowance, the Examiner is invited to call Applicants' representative at the telephone number listed below.

If this Response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed payment, please charge any deficiency to Deposit Account No. 50/2762 (Ref. No. M2019-7027US).

Respectfully submitted, Fufang Zha et al., Applicants

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Siemens Docket No.: 2002P87059WOUS Memcor Docket No.: IPD-C335-US L&A Docket No.: M2019-7027US